

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-34 (Cancelled).

Claim 35 (New): A system for forming an image having a first end and a second end which is perpendicular to the first end, comprising:

- a bus;
- a first memory device connected to the bus;
- a second memory device connected to the bus; and
- a virtual memory controller connected to the bus and configured to swap image data between the first memory device and the second memory device.

Claim 36 (New): The system of Claim 35, wherein the first memory device comprises:

- a non-paged memory; and
- a paged memory.

Claim 37 (New): The system of Claim 36, wherein the non-paged memory is configured to host a portion of an operating system or an operating system object.

Claim 38 (New): The system of Claim 37, wherein the operating system maintains a page-table.

Claim 39 (New): The system of Claim 38, wherein the operating system is configured to use the page-table to service page-faults.

Claim 40 (New): The system of Claim 36, wherein the non-paged memory is configured to host image data.

Claim 41 (New): The system of Claim 35, further comprising:
a direct memory access read buffer connected to the bus;
a direct memory access write buffer connected to the bus; and
a control and status register buffer connected to the bus.

Claim 42 (New): The system of Claim 41, further comprising one of:
a plot processor connected to the bus; and
a scan processor connected to the bus.